

REMARKS

In the Office Action the Examiner noted that claims 1-23 were pending in the application and the Examiner rejected claims 1-4, 7-15 and 18-23, while objecting to claims 5-6 and 16-17. By this Amendment various claims have been amended, claims 4, 5, 15 and 16 have been cancelled and new claims 24-25 have has been added. Thus, claims 1-3, 6-14 and 17-25 remain pending in the application. The Examiner's rejections are traversed below.

Claim Objections

In items 2 and 3 on pages 2 and 3 of the Office Action the Examiner objected to claims 5-6 and 16-17 as depending from rejected base claims. The Examiner indicated that these claims would be allowed if rewritten in independent form. By this Amendment, claim 5 has been rewritten in independent form as amended claim 1 and claim 16 has been rewritten in independent form as amended claim 12. Thus, it is submitted that amended claims 1 and 12 are in condition for allowance. In addition, it is submitted that claims 2, 3, 6-11, 13, 14 and 17-25 which depend from claim 1 or claim 12 are also in condition for allowance.

Rejection Under 35 U.S.C. § 102

In the Office Action the Examiner has rejected independent claim 23 under 35 U.S.C. § 102 as anticipated by newly cited U.S. Patent 5,984,185 to Dickson et al.

U.S. Patent 5,984,185 to Dickson et al. is directed to a holographic laser scanning system for scanning bar code symbols (see Abstract). It is capable of reading other types of graphical indicia within a large scanning volume using holographic optical elements and visible laser diodes (column 1, lines 30-35). Figures 1A-1C illustrate application environments in which the holographic laser scanner of Dickson et al. is employed. For example, in Figure 1A, the holographic laser scanner is installed in a warehouse to read bar code signals on packages. In Figure 1B, a scanner is installed above the doorway of a storage warehouse to read bar code symbols. In Figure 1C, the scanner is installed above the doorway of a storage container parked against a loading dock, and is used to read bar code symbols.

The Claimed Invention Patentably Distinguishes Over the Prior Art

Claim 23 is directed to an optical path simulation method which includes creating a three-dimensional optical model in which at least one optical component is disposed on an optical path between a light source and a destination position. A cylindrical optical axis model having a predetermined optical axis parameter and length indicative of behaviors of beams of light in the three-dimensional optical model, is calculated. The optical axis model in the three-dimensional optical model is displayed for verification.

Thus, in contrast to Dickson et al., the claimed invention is directed to an optical path simulation CAD system for displaying a three-dimensional optical model. Applicants have reviewed the comments in items 9-19 on pages 4-7 of the Office Action but have not located any teaching in Dickson et al. related to an optical path simulation CAD system which creates and displays a three-dimensional optical model. There is no specific comment in the Office Action regarding this feature and the applicant is unable to locate any teaching or suggestion relating to this feature in the portions of Dickson et al. relied on in the Office Action. Dickson et al. does teach specifying a three-dimensional structure of a laser scanning pattern and scanning volume to be realized. However, this is done in order to scan various codes and not to create a three-dimensional model in a CAD system (see Figure 7 of Dickson et al.). It is also noted that in Figure 11A, step A includes the terminology "geometrical model". However, Figure 11A relates to designing a holographic scanning disc.

In summary, it is submitted that claim 23 patentably distinguishes over the prior art.

New Claims 24 and 25

New claim 24 corresponds to prior claim 1 and therefore does not present any additional claim language for review by the Examiner.

Claim 24 is directed to an optical path simulation CAD system which comprises:

- an optical model creation unit creating and allowing a display of a three-dimensional optical model in which one or more optical components are disposed on an optical path extending from a light source to a final arrival position; and
- an optical axis auto-creation unit figuring out , based on predetermined set parameters, a cylindrical optical axis model

having a predetermined optical axis diameter and length indicative of behaviors of beams of light in said three-dimensional optical model, said optical axis auto-creation unit arranging and displaying said optical axis model in said three-dimensional optical model, for verification.

Therefore, this claim also refers to creating and allowing a display of a three-dimensional optical model. Therefore, it is submitted that claim 24 also distinguishes over the prior art.

New claim 25 corresponds to prior claim 12. New claim 25 does not submit any new claim language for consideration by the Examiner. New claim 25 is directed to an optical path simulation method which includes:

creating and displaying a three-dimensional optical model in which one or more optical components are disposed on an optical path extending from a light source to a final arrival position; and

calculating based on predetermined set parameters a cylindrical optical axis model having a predetermined optical axis parameter and length indicative of behaviors of beams of light in said three-dimensional optical model, to arrange and provide a display of said optical axis model in said three-dimensional optical model, for verification.

Therefore, it is submitted that claim 25 patentably distinguishes over the prior art.

Entry of This Amendment

As indicated above, certain claims have been rewritten in independent form to place them in condition for allowance. In addition, new claims 24 and 25 correspond to prior claims 1 and 12. Therefore, it is submitted that no new issues are raised by this Amendment and it is respectfully requested that this Amendment be entered.

Summary

It is submitted that none of the references, either taken alone or in combination, teach the present claimed invention. Thus, claims 1-3, 6-13 and 16-25 are deemed to be in a condition suitable for allowance. Reconsideration of the claims and an early notice of allowance are earnestly solicited.

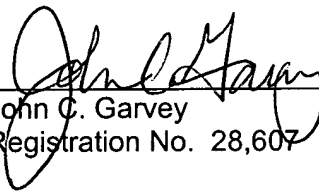
Respectfully submitted,

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